SEQUENCE LISTING

<110> Mount Sinai School of Medicine of NYU

<120> TRP8, A TRANSIENT RECEPTOR POTENTIAL CHANNEL EXPRESSED IN TASTE RECEPTOR CELL

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Pro Ser Val Leu Phe Glu Leu Leu Leu Thr Glu Trp His Leu Pro Ala
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Pro Asn Leu Val Val Ser Leu Val Gly Glu Glu Arg Pro Leu Ala Met
65                  70                  75                  80
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Ala Arg His Val Gly Gln Ala Val Arg Asp His Ser Leu Ala Ser Thr
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Ser Thr Lys Ile Arg Val Val Ala Ile Gly Met Ala Ser Leu Asp Arg
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Ile Leu His Arg Gln Leu Leu Asp Gly Val His Gln Lys Glu Asp Thr
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Pro Ile His Tyr Pro Ala Asp Glu Gly Asn Ile Gln Gly Pro Leu Cys
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Pro Leu Asp Ser Asn Leu Ser His Phe Ile Leu Val Glu Ser Gly Ala
             180                 185                 190
Leu Gly Ser Gly Asn Asp Gly Leu Thr Glu Leu Gln Leu Ser Leu Glu
         195                 200                 205
Lys His Ile Ser Gln Gln Arg Thr Gly Tyr Gly Gly Thr Ser Cys Ile
     210                 215                 220
Gln Ile Pro Val Leu Cys Leu Leu Val Asn Gly Asp Pro Asn Thr Leu
225                 230                 235                 240
Glu Arg Ile Ser Arg Ala Val Glu Gln Ala Ala Pro Trp Leu Ile Leu
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Ala Gly Ser Gly Gly Ile Ala Asp Val Leu Ala Ala Leu Val Ser Gln
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Pro His Leu Leu Val Pro Gln Val Ala Glu Lys Gln Phe Arg Glu Lys
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Phe Pro Ser Glu Cys Phe Ser Trp Glu Ala Ile Val His Trp Thr Glu
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Leu Leu Gln Asn Ile Ala Ala His Pro His Leu Leu Thr Val Tyr Asp
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Phe Glu Gln Glu Gly Ser Glu Asp Leu Asp Thr Val Ile Leu Lys Ala
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Leu Val Lys Ala Cys Lys Ser His Ser Gln Glu Ala Gln Asp Tyr Leu
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Asp Glu Leu Lys Leu Ala Val Ala Trp Asp Arg Val Asp Ile Ala Lys
         355                 360                 365
Ser Glu Ile Phe Asn Gly Asp Val Glu Trp Lys Ser Cys Asp Leu Glu
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Glu Val Met Thr Asp Ala Leu Val Ser Asn Lys Pro Asp Phe Val Arg
385                 390                 395                 400
Leu Phe Val Asp Ser Gly Ala Asp Met Ala Glu Phe Leu Thr Tyr Gly
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Arg Leu Gln Gln Leu Tyr His Ser Val Ser Pro Lys Ser Leu Leu Phe
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Glu Leu Leu Gln Arg Lys His Glu Glu Gly Arg Leu Thr Leu Ala Gly
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Leu Gly Ala Gln Gln Ala Arg Glu Leu Pro Ile Gly Leu Pro Ala Phe
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465                 470                 475                 480
Cys Arg Gly Phe Tyr Gln Asp Gly Arg Arg Met Glu Glu Arg Gly Pro
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Pro Lys Arg Pro Ala Gly Gln Lys Trp Leu Pro Asp Leu Ser Arg Lys
             500                 505                 510
Ser Glu Asp Pro Trp Arg Asp Leu Phe Leu Trp Ala Val Leu Gln Asn
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Arg Tyr Glu Met Ala Thr Tyr Phe Trp Ala Met Gly Arg Glu Gly Val
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Arg Ala Phe Ala Leu Leu Val Arg Arg Asn His Ser Trp Ser Arg Thr
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Thr Cys Leu His Leu Ala Thr Glu Ala Asp Ala Lys Ala Phe Phe Ala
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His Asp Gly Val Gln Ala Phe Leu Thr Lys Ile Trp Trp Gly Asp Met
625                 630                 635                 640
Ala Thr Gly Thr Pro Ile Leu Arg Leu Leu Gly Ala Phe Thr Cys Pro
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Ala Leu Ile Tyr Thr Asn Leu Ile Ser Phe Ser Glu Asp Ala Pro Gln
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Arg Met Asp Leu Glu Asp Leu Gln Glu Pro Asp Ser Leu Asp Met Glu
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Gly Arg Thr Val Leu Ala Ile Asp Phe Met Val Phe Thr Leu Arg Leu
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Val Trp Leu Val Ala Tyr Gly Val Thr Thr Gln Ala Leu Leu His Pro
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His Asp Gly Arg Leu Glu Trp Ile Phe Arg Arg Val Leu Tyr Arg Pro
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Tyr Leu Gln Ile Phe Gly Gln Ile Pro Leu Asp Glu Ile Asp Glu Ala
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Arg Val Asn Cys Ser Leu His Pro Leu Leu Leu Glu Ser Ser Ala Ser
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Cys Pro Asn Leu Tyr Ala Asn Trp Leu Val Ile Leu Leu Leu Val Thr
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Phe Leu Leu Val Thr Asn Val Leu Leu Met Asn Leu Leu Ile Ala Met
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Phe Ser Tyr Thr Phe Gln Val Val Gln Gly Asn Ala Asp Met Phe Trp
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Lys Phe Gln Arg Tyr His Leu Ile Val Glu Tyr His Gly Arg Pro Ala
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Gln Lys Glu Asn Phe Leu Ser Thr Met Glu Lys Arg Arg Arg Asp Ser
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Glu Gly Glu Val Leu Arg Lys Thr Ala His Arg Val Asp Leu Ile Ala
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Lys Tyr Ile Gly Gly Leu Arg Glu Gln Glu Lys Arg Ile Lys Cys Leu
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Glu Ser Gln Ala Asn Tyr Cys Met Leu Leu Leu Ser Ser Met Thr Asp
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Thr Leu Ala Pro Gly Gly Thr Tyr Ser Ser Ser Gln Asn Cys Gly Cys
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Pro Ser Val Leu Phe Asp Leu Leu Leu Ala Glu Trp His Leu Pro Ala
    50                  55                  60
Pro Asn Leu Val Val Ser Leu Val Gly Glu Glu Gln Pro Phe Ala Met
65                  70                  75                  80
Lys Ser Trp Leu Arg Asp Val Leu Arg Lys Gly Leu Val Lys Ala Ala
                85                  90                  95
Gln Ser Thr Gly Ala Trp Ile Leu Thr Ser Ala Leu Arg Val Gly Leu
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Ala Arg His Val Gly Gln Ala Val Arg Asp His Ser Leu Ala Ser Thr
        115                 120                 125
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His Tyr Pro Glu Asp Asp Gly Gly Ser Gln Gly Pro Leu Cys Ser Leu
                165                 170                 175
Asp Ser Asn Leu Ser His Phe Ile Leu Val Glu Pro Gly Pro Pro Gly
            180                 185                 190
Lys Gly Asp Gly Leu Thr Glu Leu Arg Leu Arg Leu Glu Lys His Ile
        195                 200                 205
Ser Glu Gln Arg Ala Gly Tyr Gly Gly Thr Gly Ser Ile Glu Ile Pro
    210                 215                 220
Val Leu Cys Leu Leu Val Asn Gly Asp Pro Asn Thr Leu Glu Arg Ile
225                 230                 235                 240
Ser Arg Ala Val Glu Gln Ala Ala Pro Trp Leu Ile Leu Val Gly Ser
                245                 250                 255
Gly Gly Ile Ala Asp Val Leu Ala Ala Leu Val Asn Gln Pro His Leu
            260                 265                 270
Leu Val Pro Lys Val Ala Glu Lys Gln Phe Lys Glu Lys Phe Pro Ser
        275                 280                 285
Lys His Phe Ser Trp Glu Asp Ile Val Arg Trp Thr Lys Leu Leu Gln
    290                 295                 300
Asn Ile Thr Ser His Gln His Leu Leu Thr Val Tyr Asp Phe Glu Gln
305                 310                 315                 320
Glu Gly Ser Glu Glu Leu Asp Thr Val Ile Leu Lys Ala Leu Val Lys
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Ala Cys Lys Ser His Ser Gln Glu Pro Gln Asp Tyr Leu Asp Glu Leu
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Lys Leu Ala Val Ala Trp Asp Arg Val Asp Ile Ala Lys Ser Glu Ile
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Val Asp Ala Leu Val Ser Asn Lys Pro Glu Phe Val Arg Leu Phe Val
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Gln Gln Ala Arg Glu Pro Pro Ala Gly Pro Pro Ala Phe Ser Leu His
    450                 455                 460
Glu Val Ser Arg Val Leu Lys Asp Phe Leu Gln Asp Ala Cys Arg Gly
465                 470                 475                 480
Phe Tyr Gln Asp Gly Arg Pro Gly Asp Arg Arg Arg Ala Glu Lys Gly
                485                 490                 495
Pro Ala Lys Arg Pro Thr Gly Gln Lys Trp Leu Leu Asp Leu Asn Gln
            500                 505                 510
Lys Ser Glu Asn Pro Trp Arg Asp Leu Phe Leu Trp Ala Val Leu Gln
        515                 520                 525
Asn Arg His Glu Met Ala Thr Tyr Phe Trp Ala Met Gly Gln Glu Gly
    530                 535                 540
Val Ala Ala Ala Leu Ala Ala Cys Lys Ile Leu Lys Glu Met Ser His
545                 550                 555                 560
Leu Glu Thr Glu Ala Glu Ala Ala Arg Ala Thr Arg Glu Ala Lys Tyr
                565                 570                 575
Glu Arg Leu Ala Leu Asp Leu Phe Ser Glu Cys Tyr Ser Asn Ser Glu
            580                 585                 590
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Ala Arg Ala Phe Ala Leu Leu Val Arg Arg Asn Arg Cys Trp Ser Lys
        595                 600                 605
Thr Thr Cys Leu His Leu Ala Thr Glu Ala Asp Ala Lys Ala Phe Phe
    610                 615                 620
Ala His Asp Gly Val Gln Ala Phe Leu Thr Arg Ile Trp Trp Gly Asp
625                 630                 635                 640
Met Ala Ala Gly Thr Pro Ile Leu Arg Leu Leu Gly Ala Phe Leu Cys
                645                 650                 655
Pro Ala Leu Val Tyr Thr Asn Leu Ile Thr Phe Ser Glu Glu Ala Pro
            660                 665                 670
Leu Arg Thr Gly Leu Glu Asp Leu Gln Asp Leu Asp Ser Leu Asp Thr
        675                 680                 685
Glu Lys Ser Pro Leu Tyr Gly Leu Gln Ser Arg Val Glu Glu Leu Val
    690                 695                 700
Glu Ala Pro Arg Ala Gln Gly Asp Arg Gly Pro Arg Ala Val Phe Leu
705                 710                 715                 720
Leu Thr Arg Trp Arg Lys Phe Trp Gly Ala Pro Val Thr Val Phe Leu
                725                 730                 735
Gly Asn Val Val Met Tyr Phe Ala Phe Leu Phe Leu Phe Thr Tyr Val
            740                 745                 750
Leu Leu Val Asp Phe Arg Pro Pro Pro Gln Gly Pro Ser Gly Pro Glu
        755                 760                 765
Val Thr Leu Tyr Phe Trp Val Phe Thr Leu Val Leu Glu Glu Ile Arg
    770                 775                 780
Gln Gly Phe Phe Thr Asp Glu Asp Thr His Leu Val Lys Lys Phe Thr
785                 790                 795                 800
Leu Tyr Val Gly Asp Asn Trp Asn Lys Cys Asp Met Val Ala Ile Phe
                805                 810                 815
Leu Phe Ile Val Gly Val Thr Cys Arg Met Leu Pro Ser Ala Phe Glu
            820                 825                 830
Ala Gly Arg Thr Val Leu Ala Met Asp Phe Met Val Phe Thr Leu Arg
        835                 840                 845
Leu Ile His Ile Phe Ala Ile His Lys Gln Leu Gly Pro Lys Ile Ile
    850                 855                 860
Val Val Glu Arg Met Met Lys Asp Val Phe Phe Phe Leu Phe Phe Leu
865                 870                 875                 880
Ser Val Trp Leu Val Ala Tyr Gly Val Thr Thr Gln Ala Leu Leu His
                885                 890                 895
Pro His Asp Gly Arg Leu Glu Trp Ile Phe Arg Arg Val Leu Tyr Arg
            900                 905                 910
Pro Tyr Leu Gln Ile Phe Gly Gln Ile Pro Leu Asp Glu Ile Asp Glu
        915                 920                 925
Ala Arg Val Asn Cys Ser Thr His Pro Leu Leu Leu Glu Asp Ser Pro
    930                 935                 940
Ser Cys Pro Ser Leu Tyr Ala Asn Trp Leu Val Ile Leu Leu Leu Val
945                 950                 955                 960
Thr Phe Leu Leu Val Thr Asn Val Leu Leu Met Asn Leu Leu Ile Ala
                965                 970                 975
Met Phe Ser Tyr Thr Phe Gln Val Val Gln Gly Asn Ala Asp Met Phe
            980                 985                 990
Trp Lys Phe Gln Arg Tyr Asn Leu Ile Val Glu Tyr His Glu Arg Pro
        995                 1000                1005
Ala Leu Ala Pro Pro Phe Ile Leu Leu Ser His Leu Ser Leu Thr Leu
    1010                1015                1020
Arg Arg Val Phe Lys Lys Glu Ala Glu His Lys Arg Glu His Leu Glu
1025                1030                1035                1040
Arg Asp Leu Pro Asp Pro Leu Asp Gln Lys Val Val Thr Trp Glu Thr
                1045                1050                1055
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Val Gln Lys Glu Asn Phe Leu Ser Lys Met Glu Lys Arg Arg Arg Asp
            1060                1065                1070
Ser Glu Gly Glu Val Leu Arg Lys Thr Ala His Arg Val Asp Phe Ile
        1075                1080                1085
Ala Lys Tyr Leu Gly Gly Leu Arg Glu Gln Glu Lys Arg Ile Lys Cys
    1090                1095                1100
Leu Glu Ser Gln Ile Asn Tyr Cys Ser Val Leu Val Ser Ser Val Ala
1105                1110                1115                1120
Asp Val Leu Ala Gln Gly Gly Gly Pro Arg Ser Ser Gln His Cys Gly
                1125                1130                1135
Glu Gly Ser Gln Leu Val Ala Ala Asp His Arg Gly Gly Leu Asp Gly
            1140                1145                1150
Trp Glu Gln Pro Gly Ala Gly Gln Pro Pro Ser Asp Thr
        1155                1160                1165
```